Which U.S. Power Plants Burned Montana Coal in 2016?

Coal Plant	Megawatts	Outlook	Owner Position	January 17, 2018 Exhibit
TES Filer City Station CMS Energy, MI	73 MW	Consumers Energy says the coal and biomass plant will be converted to natural gas in 2018.	CMS Energy has stated it is transitioning to clean energy sources and retired their seven oldest coal-fired generating plants.	In 2016, the facility used about 144,402 tons of coal from Signal Peak.
DTE-BRSC Shared Storage DTE Energy, MI	1,664 MW Belle River 1,547 MW St. Clair	Belle River is scheduled to retire in 2030. St. Clair is scheduled to retire between 2020 and 2023.	In May, DTE Energy , Michigan's largest electricity supplier, announced plans for an 80% reduction in carbon emissions and the closure of all of its coal-fired power plants by 2050.	In 2016, 2.1 million tons of Decker Mine coal shipped to the facilities – about 49% of its average annual production.
Presque Isle Power Plant We Energies, MI	359 MW Unit 5 & 6: 55 MW Unit 7-9: 83 MW Units 1 & 2: Retired Units 3 and 4: Retired	The plant is expected to be retired by 2020 and replaced by two natural gas generating stations. In October 2017, the Michigan Public Service Commission approved a request to build 2 gas plants and once complete allow for closure of the plants.	We Energies announced in 2017 it will shut down its Pleasant Prairie coal-fired power plant (1,200 MW) in 2018, citing pressures from inexpensive natural gas and stagnant demand. The utility also announced it would be investing in renewable energy, with plans to have 350 MW of solar online by 2020.	In 2016, the plant received 631,587 tons of Spring Creek coal.
Clay Boswell Minnesota Power, Minn.	1,025 MW Units 1 and 2: 70 MW Unit 3: 350 MW Unit 4: 535 MW	The Minnesota PUC in 2016 approved Minnesota Power's 15-year resource plan, calling for retiring 2 older units at Clay Boswell by 2022, 2 years earlier than the utility proposed. Units 3 and 4 are not scheduled for retirement.	Minnesota Power says its long-term goal is to transition from about 75% coal to 1/3 coal, 1/3 renewables, and 1/3 natural gas, a strategy officials are calling EnergyForward. Ten years ago Minnesota Power generated about 95 percent of its electricity from coal.	In 2016, the facility used about 1.3 million tons of Montana coal. The plant has used coal from the Decker Mine, the Spring Creek Mine, and the Rosebud Mine.





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Sherburne County Xcel Energy and Southern Minnesota	2,238 MW Unit 1: 680 MW	In 2016, the Minnesota Public Utilities Commission approved a plan to retire the Sherburne Unit 2 by 2023 and Unit 1 by	Xcel , is closing 2 of its coal units in Pueblo a decade ahead of schedule. Xcel is requesting bids for 1,000 MW of wind, 700 MW of solar and 700 MW of natural gas under its	In 2016, 3.8 million tons of Montana coal was shipped to the Sherburne County plant – about 70% of the average annual production at the
Municipal Power Agency, Minn.	Unit 2: 682 MW	2026. Unit 3 is not scheduled for retirement.	Colorado Energy Plan.	Absoloka Mine.
IVIIIII.	Unit 3: 876 MW		SMMPA's main source of electricity is its 41% share of Unit 3. It sells to 18 municipal utilities.	
Stanton Station Great River Energy, North Dakota	198 MW	The plant shut down in 2017. Great River Energy announced in 2016 that it would close the plant rather than undertake expensive upgrades. It is scheduled for demolition in 2018.	Great River Energy provides electricity to 28 cooperatives serving 1.7 million customers. It remains dependent on fossil fuel plants, primarily coal for baseline generation But wind has increasingly become an investment of choice.	In 2016, the plant received 397,710 tons of Spring Creek coal.
Coronado Salt River Project, Arizona	773 MW Unit 1: 389 MW Unit 2: 384 MW	SRP is in ongoing discussions with EPA on regional haze requirements at the facility.	Four utilities, including SRP , agreed to close the Navajo Generating Station by 2019 due to competition from cheaper natural gas.	In 2016, about 475,000 tons of Spring Creek Coal went to Coronado.
Centralia TransAlta, Wash.	1,340 MW Units 1 & 2: 670 MW	Based on an MOU with Washington state, TransAlta will shut down the first unit at Centralia in 2020. The second will stop burning coal in 2025.	TransAlta in 2017 announced a strategy to accelerate the transition to gas and renewable generation.	In 2016, the facility received 2.5 million tons of Spring Creek coal or about 15% or the mine's average annual production.





		Which U.S. Power Pla	nts Burned Montana Coal in 2016?	
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Colstrip Generating Station Talen Energy, Puget Sound Energy, Portland General, Avista, PacifiCorp, and NWE, Montana	2,094 MW Units 1 & 2: 307 MW Units 3 & 4: 740 MW	Units and 1 and 2 will close by July 1, 2022, under a legal settlement. No retirement date is scheduled for Units 3 and 4. Under a plan approved by the Washington Utilities and Transportation Commission, Puget Sound Energy, the largest owner of the Colstrip plant, will pay down its debts from Units 3 and 4 by 2027.	PSE: In 2016, 37% of the company's fuel mix for electricity came from coal. PGE: PGE will cease serving customers with power from Colstrip by the end of 2035. Avista: Avista is poised to be acquired by Hydro One of Ontario. In 2015 Ontario banned coal-fired electricity. PacifiCorp: PacifiCorp's 2015 energy plan includes "ending coal generation at 10 units by 2029. By 2034, the company will reduce reliance on coal by 2,800 megawatts. NWE: 60% of generation from wind and water in 2016. 22% from owned thermal and the remainder from contract thermal. Talen: In August 2017, Talen Energy Corp. informed the co-owners of the plant that it planned to operate the facility and keep it open.	In 2016, 8.5 million tons or 85% of the coal mined at Rosebud, was used at the Colstrip Generating Station.

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- The categories used in the database are for coal receipts, with one exception. Coal distributed to industrial plants includes a small amount of coal consumed by coal preparation plants.
- The EIA in its Annual Coal Distribution Report includes estimates of coal exports data by brokers/traders. The coal exports by brokers/traders are estimated. The data in EIA Form 923 indicate that starting in 2011, large amounts of Montana coal were exported out of the country, or exported by brokers to locations unknown. Information as to where broker exported coal went is not available. This table does not include coal that went overseas.



	Which addition	onal U.S. Power Plants Burned Montana Coal Between 2008-2015?	
Coal Plant	Megawatts	Outlook	MT Coal Used
	fired power plants provided 36 duled to shut down by 2020. E	% of Michigan's electricity generation; 2 years earlier, they had provided 50% of the state. IA	te's electricity. Twenty-five coal
Karn-Weadock	2,100 MW	Consumers Energy is closing 7 of its coal-fired plants. Closures include Karn-Weadock (2 units, 310 MW). The closure will leave Consumers with 5 units operating: 3 at the 1,450-MW Campbell plant and 2 (511 MW) at Karn-Weadock.	Absaloka; Spring Creek
BC Cobb	320 MW	Closed 2016.	Absaloka; Spring Creek
Monroe	3,066 MW	DTE says it plans to close Monroe in 2040.	Decker; Spring Creek
Wyandotte	73 MW	Can burn coal, natural gas, and tire derived fuel.	Decker; Spring Creek
River Rouge	651 MW	One unit retired in November 2015, and the other is planned for retirement in 2023.	Spring Creek
James De Young	62 MW	Retired in 2016 and replaced with natural gas.	Spring Creek
Shiras	77 MW	In 2017 Marquette Board of Light & Power officials said the Shiras coal-fired steam plant may no longer be a cost-effective generating asset in the long term.	Spring Creek
	of utility-scale electricity gener from Wyoming and Montana.	ation in Minnesota came from coal-fired electric power plants in 2016, down from 44% is	n 2015. Almost all of Minnesota
Syl Laskin	110 MW	Converted to natural gas.	Decker; Signal Peak/Bull Mountain
Taconite Harbor Energy Center	150 MW	Idled in 2016 with full-closure planned in 2020.	Decker; Spring Creek
Hoot Lake	139 MW	According to a 15-year resource plan, Otter Tail Power will close Hoot Lake in 2021.	Spring Creek





Coal Plant	Megawatts	Outlook	MT Coal Used
Ohio Ohio is among the trapacity was retired. However	op 5 coal-consuming states ver, in 2016, coal still fueled a	in the nation. Twice as much coal is consumed in Ohio as is produced there. In 2015, 15 almost three-fifths of the state's power generation. EIA	% of the state's coal-fired genera
FirstEnergy Ashtabula	256 MW	Closed in 2015.	Signal Peak/Bull Mountain
FirstEnergy Eastlake	1,257 MW	Closed in 2015.	Signal Peak/Bull Mountain
FirstEnergy WH Sammis	2,210 MW	Units 1-4, about 720 MW of capacity, will retire in May 2020. Units 5-7 will continue to provide 1,490 MW of baseload generation.	Signal Peak/Bull Mountain
FirstEnergy Lakeshore	245 MW	Closed in 2015.	Signal Peak/Bull Mountain
FirstEnergy Bay Shore	136 MW	Bay Shore Units 2-4 were deactivated in 2012. Additional units to be sold or closed by 2020.	Signal Peak/Bull Mountain
Avon Lake	766 MW	NRG announced in 2017 a corporate reorganization that allowed GenOn Energy, a subsidiary of NRG, to file Chapter 11 bankruptcy. The plant's future will be determined by GenOn, after its emergence from bankruptcy.	Spring Creek
Niles	266 MW	Closed in 2012.	Spring Creek
Pennsylvania Pennsylvani vailability of economic natu	a has the nation's fifth-large aral gas, 1/3 of Pennsylvania	st coal-fired electric generating fleet. Many of the state's coal-fired generating plants are a's coal-fired generating capacity shut down between 2010 and the end of 2016. EIA	e older, and, with the increased
irstEnergy Bruce Mansfield	2,490 MW	The plant was idled in February 2016, and restarted for some periods in 2017. The company is looking to potentially sell the plant.	Signal Peak/Bull Mountain





Coal Plant	Megawatts	Outlook	MT Coal Used
New Castle Plant	330 MW	Converted to natural gas.	Spring Creek
Hatfields Ferry Power Station	1,710 MW	Closed in 2017.	Spring Creek
Chewswick Power Plant	565 MW	In 2017 the Sierra Club filed suit against the state Department of Environmental Protection for failure to enforce drinking water standards at the site. The plant continues to operate.	Spring Creek
Wisconsin In 2016, coal pr	ovided 52% of the state's ne	et electricity generation. EIA	
Valley	280 MW	Converted to natural gas.	Signal Peak/Bull Mountain
Alma Site	400 MW (remaining)	Alma Station and JP Madgett Station are part of the Alma site. Alma Station is retired. John P. Madgett continues to operate.	Signal Peak/Bull Mountain
Nelson Dewey Generating Station	200 MW	Closed in 2015.	Spring Creek
Arizona – The Navajo Gener	rating Station is scheduled t	o close in 2019, removing nearly two-fifths of Arizona's coal-fired capacity from service.	EIA
Apache Station	605 MW	Units can burn coal or natural gas.	Decker
Cholla	1,129 MW	Unit 2 (289 MW) closed in 2015. PacifiCorp plans to retire Unit 4 (414 MW) by 2024. Unit 1 (113 MW) and Unit 3 (312 MW) remain in operation.	Spring Creek





Coal Plant	Megawatts	Outlook	MT Coal Used
	about 71% of North Dakota's counted for 3.2% of U.S. coal p	net electricity generation came from coal. In 2015, North Dakota had 5.3% of the nation roduction. EIA	's recoverable coal reserves at
RM Heskett	100 MW	Units 1 and 2 continue to operate.	Absaloka
South Dakota Coal's c	contribution has fallen from mo	re than half the state's net electricity generation in 2008 to 1/5 in 2016. EIA	
	475 MW	In June 2008, the Sierra Club filed a lawsuit against Otter Trail Power, alleging violations of the Clean Air Act. The case has since been dismissed. for about 1/3 of net electricity generation, but, in 2015, with older coal plants reducing of	Absaloka perations or closing, coal supplied
Big Stone Texas Coal-fired power about one-fourth of gene	er plants historically accounted		
Cexas Coal-fired power bout one-fourth of gene Gibbons Creek Montana Montana produ	er plants historically accounted eration. EIA 470 MW uces almost 5% of the nation's coarate electric power. About half of I	Clean Air Act. The case has since been dismissed. for about 1/3 of net electricity generation, but, in 2015, with older coal plants reducing of The Texas Municipal Power Agency in 2017 told the Electric Reliability Council of Texas that it	Rosebud e state, and all but a small fraction of to western Canada, where much of





Coal Plant	Megawatts	Outlook	MT Coal Used
		If of the state's net generation, and natural gas provides almost one-fourth. Electricity for some state is net electricity generation in 2016, led by increased wind power. EIA	From renewable sources has more
Valmont	186 MW	Xcel announced it stopped burning coal at the facility in March 2017.	Signal Peak/Bull Mountain
		all coal-fired, and coal is the primary fuel used for electricity generation. As recently as ne in decades, coal-fired plants produced less than half of the electricity generated in the	
Streeter Station	88 MW	Can burn natural gas or coal.	Signal Peak/Bull Mountain
of net generation from nat	ural gas more than doubled fr	generation has historically been fueled by coal. In 2016, only 7 of every 10 MWh was generation two years earlier, to nearly 2 of every 10 MWh. Nine of the state's 10 largest power power retired during 2016. EIA	
of net generation from nat than 1,000 MWs of older co		com two years earlier, to nearly 2 of every 10 MWh. Nine of the state's 10 largest power p	
of net generation from nat	ural gas more than doubled froal-fired generating capacity	rom two years earlier, to nearly 2 of every 10 MWh. Nine of the state's 10 largest power power retired during 2016. EIA Indiana Michigan Power Co. said in a 2015 resource plan they plan to keep the plant open	plants are still coal-fired, but more
of net generation from natchan 1,000 MWs of older concepts State Line Energy Missouri Coal fuels about	ural gas more than doubled froal-fired generating capacity version of Missouri's	rom two years earlier, to nearly 2 of every 10 MWh. Nine of the state's 10 largest power power retired during 2016. EIA Indiana Michigan Power Co. said in a 2015 resource plan they plan to keep the plant open through at least 2028 by renewing a lease and upgrading pollution controls.	Signal Peak/Bull Mountain Decker; Spring Creek
of net generation from nat than 1,000 MWs of older co Rockport State Line Energy Missouri Coal fuels about	ural gas more than doubled froal-fired generating capacity version of Missouri's	Indiana Michigan Power Co. said in a 2015 resource plan they plan to keep the plant open through at least 2028 by renewing a lease and upgrading pollution controls. Closed in 2012. Closed in 2012. Closed in 2012.	Signal Peak/Bull Mountain Decker; Spring Creek





Coal Plant	Megawatts	Outlook	MT Coal Used
West Virginia Coal-fired e	lectric power plants accoun	ted for 94% of West Virginia's net electricity generation in 2016. EIA	
FirstEnergy Harrison Power Station	1,984 MW	Fully operational.	Spring Creek
FirstEnergy Pleasants Power Station	1,300 MW	The West Virginia Public Service Commission is considering approval of the power plant transfer by First Energy to its subsidiaries, Mon Power and Potomac Edison.	Spring Creek
recent years, less than 5% of		Upstate New York Power Producers sought PSC approval to repower Cayuga with natural gas, but failed. In 2016, Upstate sold both the Cayuga and Somerset plants to Riesling Power LLC, a	as been mostly natural gas-fired. Spring Creek
recent years, less than 5% of	New York's net electricity	generation has been fueled by coal. EIA	
	New York's net electricity	Upstate New York Power Producers sought PSC approval to repower Cayuga with natural gas, but failed. In 2016, Upstate sold both the Cayuga and Somerset plants to Riesling Power LLC, a	
Cayuga Operating Company Somerset Operating Co. Oregon – In 2016 Oregon en	323 MW 655 MW acted legislation that requir	Upstate New York Power Producers sought PSC approval to repower Cayuga with natural gas, but failed. In 2016, Upstate sold both the Cayuga and Somerset plants to Riesling Power LLC, a wholly owned subsidiary of Beowulf Energy LLC. In 2016, Upstate sold both the Cayuga and Somerset plants to Riesling Power LLC, a wholly	Spring Creek Spring Creek





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- Between 2008 and 2015, Montana coal also went to the plants listed in the 2016 table. The information, however, was not repeated in the second chart. For example, nearly all the coal mined at Rosebud was burned at Colstrip between 2008 and 2016. Coal from the Absaloka Mine also was sent to the Sherburne facility every year since 2008. Decker coal shipped to Clay Boswell annually since 2008, with the exception of 2011. Decker coal also annually goes to shared storage for St. Clair and Belle River. Every year, Spring Creek coal has gone to Presque Isle, Clay Boswell, Centralia, Coronado, and with the exception of 2008, Stanton, Belle River, and St. Clair.

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